DETAILED ACTION

Substance of Interview

Typographical errors present in the previous Examiner's amendment filed 10/08/08 were brought to the attention of the Examiner. Specifically, the "second electrode" clause of amended claim 13 was not accurately transposed into the Examiner's amendment. Consequently, the Examiner has corrected the typographical errors in the following Examiner's Amendment. The previous reasons for allowance are still correct and have not changed due to this Examiner's Amendment.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Yoon Kim on 12/05/08.

The application has been amended as follows:

13. (Currently Amended) A photoluminescence quenching device (PQD), comprising an organic light emitting material;

a first electrode which is transparent and is located on a front side of the organic light emitting material; and

a second electrode which is located on a back side of the organic light emitting material wherein the PQD comprises an electron barrier layer comprising phenylenediamine derivatives and a hole barrier layer disposed between the light emitting material and one of the first electrode or the second electrode, respectively, and a highest occupied molecule orbital of the hole barrier layer is energetically lower than the highest occupied molecule orbital of the light emitting material and a lowest unoccupied molecule orbital of the electron barrier layer is energetically higher than a lowest unoccupied molecule orbital of the light emitting material, [[and]]

wherein the lowest unoccupied molecule orbital of the light emitting material corresponds to the lowest unoccupied molecule orbital of the hole barrier layer and the highest occupied molecule orbital of the electron barrier layer corresponds to the highest occupied molecule orbital of the light emitting material, whereby the first electrode forms a cathode and the second electrode forms an anode during re-emissive operation of the PQD and the first electrode forms the anode and the second electrode forms the cathode during emissive operation of the PQD; [[or]]and

~~wherein the lowest unoccupied molecule orbital of the light emitting material is energetically higher than the lowest unoccupied molecule orbital of the hole barrier layer and the highest occupied molecule orbital of the electron barrier layer is energetically higher than the highest occupied molecule orbital of the light emitting material, whereby the first electrode forms a cathode and the second electrode forms an anode during re-emissive operation of the PQD~~

wherein the hole barrier layer comprises at least one compound selected from a group consisting of oxadiazole derivatives, oxazole derivatives, triazole derivatives and quinoxaline

derivatives and/or at least one compound selected from a group consisting of naphthalene carboxylic acid imide derivatives, naphthalene dicarboxylic acid diimide derivatives and wide-bandgap inorganic semiconductors.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER J. MACCHIAROLO whose telephone number is (571)272-2375. The examiner can normally be reached on 8:30 - 5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter J Macchiarolo/
Primary Examiner, Art Unit 2879